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National Board

THIS journal from its inception has regarded its scope as national. The higher learning knows no boundaries except the frontiers of the unexplored. The common interests of college and university teachers provide a bond that is independent of geographical location. Within ten weeks after the first issue appeared, the subscription list included thirty-two states, and has steadily mounted to include now all the states and twenty-two territories and foreign countries.

Faculty people—nearly one hundred of them —from many disciplines have contributed articles. Contributions have come from more than sixty colleges and universities in the East, the South, Midwest, and West.

The nationwide function made it important that provision be made for a nationwide point of view. Steps were taken last winter to enlist an advisory board that would represent the whole realm of higher education—the arts and sciences, undergraduate and graduate teaching, professional and continuing education—as well as the principal sections of the country. Seventeen persons who were known or believed to be interested in the improvement of college teaching were requested to help by giving thought to improvements they would like to see in the journal, especially in respect to policy and development. At a luncheon in New York City suggestions were made in person. Others unable to be present sent suggestions by mail. As a result there is at hand a representative body of suggestions.

Later, twelve persons were invited to become members of a National Editorial Advisory Board. We present on this page the new Board—with gratitude for their gracious willingness to serve, with pride because they are a distinguished company, most of them so well known as to require no introduction. Each of them is interested in and is contributing to the movement to improve college and university teaching. Each has been over an extended period a friend of this journal.

These new Board members now make a new, dual contribution. By their pledge of support, they give significant encouragement. By taking a place in the future of the journal, they provide a challenge to the editor and to future contributors to enlarge the usefulness and elevate the quality of its pages.

Editorial—

Promised Land

WHEN DANTE hailed him as "Master," Virgil answered "I will be thy guide."

The teacher's role is truly enough that of guide. Tours, treks, and voyages have exhilarating connotations and commonly yield lasting influences. To plan and head a pilgrimage or expedition, especially an organized one comparable to a college course, demands knowledge, experience, and talent. Teachers have prestige because they possess these qualities. The guiding that teachers do is, of course, of the mind and spirit.

A "course" is a path to be traveled. A "curriculum" is a pattern of such paths. A teacher is a fit guide for his particular stretch of the college journey. He has traveled it. He knows its pleasant ways, its rough spots, its perils, its scenic vistas, its hidden treasure. He presumably loves this trail—whether it be physics, classics, economics, architecture, law—and by his attitude of respect, appreciation, and enthusiasm enhances the zeal of the students he guides.

There are all kinds of guides, and there are all kinds of teachers—from routine to rare.

The routine type may be likened to the guides in national parks who take groups of tourists day after day the summer long, perhaps year after year, over the same itinerary, pointing out the same wonders, telling the same yarns. Such a tour may begin "at the south entrance of the Lodge at nine o'clock" and end there just before lunch. A guide who conducts such a trip over and over, with the same script almost automatically repeated, is not one with whom many of us as teachers would want to be compared. It is said, however, that some professors really do use the same notes and the same jokes perennially. Perhaps this is not true, or at least not common. It is said, too, that many students, even good students, prefer to learn by lectures rather than reading, and professors like to lecture. Do not children like to be carried, and parents like to carry? Smooth, perfectly appointed travel, however, will bring only superficial or temporary values. Is it on this level of guiding that we are willing to maintain our teaching?

Another teacher type, more numerous, where most of us may belong, corresponds to guides who conduct nature tours. They are specialists and, though they do not give grades and credit, operate much as do specialists who lead field trips through botanical, geological, anthropological, sociological, or other realities. Most teachers in classroom or conference, in demonstration and many other teaching-learning situations, are guides who operate above the level of mere routine. Though they themselves have covered the course over and over, they seek to give their students an experience fresh and vital.

The experience is of a deeper order than merely covering a trail and enjoying it. A course should be pleasant, but it must be serious in purpose and process. Whether one is studying phenomena first hand or in classroom, library, or laboratory, one must as it were plod, dig, run with a net, examine, compare, ponder, if learning is to be lasting. Virgil took Dante through many circles, pouches, and terraces along "an arduous and rugged way," expounding and interpreting as they went. Only in direst extremity did he carry his pupil. For the most part Dante himself did his own walking, toiling, and seeing. He reached an ultimate depth out of which the only way was to climb.

A time came, too, when Virgil left Dante to go where the teacher could not go. The parting was not like the ordinary end of term parting of teacher and student. The teacher had brought his pupil to a new realm.

Similarly Moses, "the world's first great teacher," having led his people through wildernesses and tribulations, came at last to a high point where he looked out upon the Promised Land which he would never enter but which his followers would possess. Intelligent and loving parents strive to give their children some portion of life unattainable to themselves. They make sacrifices, save them from blind alleys, increase their efficiency and purpose. There should be a Land of Promise for youth better than its elders could reach, else how could the generations advance?

The rarest type of teacher transcends the role of guide. The great teachers lead their students to a trail they themselves have never trod. The most of us, though we cannot be great teachers, can learn from them. Each of us, working at his best, will have a small element of greatness, a bit of vision, to light our teaching and to open up, to some of our students at least, a glimpse of life and knowledge that may be theirs though it can never be ours.

The Socratic Method in Modern Dress

Many readers will remember the article in the May 1953 issue by Winslow R. Hatch and H. K. Buechner on "Teaching an Integrated Course in the Biological Sciences." Dr. Hatch (A.B., Dartmouth; Ph.D., Johns Hopkins) left a distinguished record of service as professor and associate dean at the State College of Washington to become dean (1955) of the College of General Education at Boston University. His experience, studies, and thinking on problems of general education and the teaching of biology have been embodied in a series of articles of which we are privileged to present the first in this issue, to be followed by the others as rapidly as space limitations permit.

By WINSLOW R. HATCH

WHAT HAPPENS when inquiry is sustained through a whole course can be shown by reference to a course in biology in which a Socratic method was used throughout.[1]

The experimentation which resulted in this course was conducted over a period of twelve years. It was done in a land-grant liberal arts college and started in an introductory course in botany. I made the decision to try something new on the way to my first lecture in the course. This somewhat disconcerting decision was prompted by the fact that in some eight years of teaching, teaching as I had been taught, I had been unable to create that intellectual excitement that seemed to me to be a reasonable expectation of students in an institution of higher education. I had used all the eloquence and showmanship I could command in lecture. I had made piecemeal departures from the traditional pattern in the laboratory. I had used cajolery and even strongarm methods, but I had failed.

It was this failure which overwhelmed me enroute to class. What made it worse was the realization that while mine was a science course, I had not been teaching it scientifically. I lectured on the scientific method, but I did not use the scientific method and certainly the students did not use it.

Furthermore, it was only too apparent that I had not done any original thinking about my teaching, and certainly the students were not doing much thinking. I was memorizing what I had been taught, and the students were memorizing what I taught them. I knew something of the excitement of research, but my students were not encouraged to experiment in the laboratory. And so without entirely recognizing just how we were going to extricate ourselves from the predicament into which my decision had plunged us, we (and I use the word advisedly) felt our way to a kind of teaching[2] which I have come to call *student inquiry.*

WHAT IS IT WE WISH TO INQUIRE INTO?

The class was small enough so that it was possible to meet in a laboratory for all of the work. I made it a practice to talk as little as possible and only when necessary. I threw away my lecture notes and the students did likewise with their manuals. We broke our way into the course by asking ourselves, "What is it we wish to inquire into?" We began by studying theories, or systems of classification. This study led to a careful analysis of a generalized life cycle. Then, using unfamiliar plant types, we organized our study so that the students were forced to discover life cycles for themselves. They were given the requisite materials, the necessary stages. They all had the reagents for making tests on plants, but they themselves had to determine when tests were required. They were given the wherewithal to make sections, but they had to decide when sections should be made. They were also provided with the requisite aids to observation.

The course nearly foundered in the first few weeks because the students felt inadequate and the instructor was, to say the least, inexperienced with this kind of instruction. The students, however, after a few weeks, became very proficient in, and enthusiastic about, the system. This course had that intellectual excitement for which I had been looking.

The next step was inevitable. One could not inquire into the life cycles of plants without informing himself about the life cycles of animals. A logical consequence was an interdepartmental course. Since the integrative cement which had held the first course together was theory (theories of classification), theory was made the integrative framework of the new course.

1 An Integrated Course in the Biological Sciences, State College of Washington, Pullman, Washington.

2 Described in "Botany Six, An Experimental Course," *The Journal of General Education,* Volume V, No. 3, pp. 232-236.

At first we made poor inquiries and produced relatively inconsequential theories. As we became more experienced we found that inquiry could be made into subjects that led us to more inclusive, hence more important, theories. Once this corner was turned the course was a spectacular success.[3] The enrollment jumped to 450 students. To accommodate this large number, however, we had to reexamine our procedures. We went back to large lecture-type meetings, but used them to present and analyze problems, to weigh and marshal facts, much as we had done in the laboratory of the biology course. And we began to experiment with the discussion in small groups. The result eventually was a carefully integrated and sustained presentation which an observer from the Humanities program who followed our course closely identified as a modern adaptation of the Socratic method. The course described herein is that course as it was offered in 1954-55. (At the College of General Education of Boston University, we are now exploring the possibility of making inquiry a method of instruction for a college.)

The Experience of Inquiry

The "lecture" in our course is more a one-sided conference than a lecture. The students are scarcely settled in their seats for the first "lecture" before they are faced with a problem and the necessity of determining what one does with a problem. With the problem hanging over their heads and with more facts in their heads than they find altogether comfortable, the students present themselves at their first laboratory and then go to the "dialogue," or conference. The opportunity provided by the laboratory to look at unfamiliar materials is very appealing. Still more appealing is the opportunity to think out loud in the dialogue about the facts they have learned. While the way to the implications of their facts, the way to the possible theories and hypotheses, is illuminated in the laboratory and dialogue, the student has to make his own conclusions. Once he has settled upon an hypothesis or, preferably, on alternative hypotheses, he is asked to test them. He is usually happy to do so because, even though he is enrolled in an institution of higher education, this is usually his first experience with inquiry.

But there are other reasons for insisting upon inquiry by students. By requiring students to think, one can teach them more. For example, if a student is to determine for himself what an angiosperm is, he has to make careful observations of many well-chosen examples. If he has to deduce the fossil Rhynia from his knowledge of living plants, developing in the process a complete hypothetical plant, more information is required of him than if he had only to memorize all that he was told or could learn from his reading about the plant.

It has been our experience that students want a higher education and that some of the least promising students are willing to think and to improve their acquaintance with ideas. The original shock of thinking is traumatic, but most students rally, persevere, and find that thinking is a great improvement over memorizing a textbook or a lecture. When they find that it is also more practical, even as students view these things, one has a lively course on his hands. Furthermore, this kind of course permits a teacher to write the kind of examination he promises every September and compromises each February, an examination that tests understanding.

Finally, we believe that it is the nature of man and of students "to want to know," that if they had to choose they would rather be "wise men" than well-recommended technicians. Through inquiry students can discover what it is a "wise man" ought to know: namely the implications of a subject; not just the implications of a subject for that subject itself, but its implications for related subjects. In our laboratories we seek the implications of, let us say, an apple. In our dialogues we search for the implications of comparative cytology for the structural nature of life. In our examinations we are primarily concerned with the implications of ideas, of theory and hypothesis.

What is wrong with this old, old method? Why have we substituted the lecture-laboratory-textbook method for it? Can it be that teachers today are not up to it, or are our students at fault? Is it mass education, just plain numbers, that has done the Socratic method to death? Since this method was successfully used at a land-grant college, and in a large introductory course, it seems it can be effectively used in our system of mass education.

Ours is not the casual but the planned regular use of this method throughout a course. We meet the students in a lecture, so-called, but we do not lecture to them. We introduce each block of work

[3] See "Teaching an Integrated Course in the Biological Sciences," *Improving College and University Teaching*, May 1953, pp. 3-11.

in lecture as a problem; for example, we ask them, "Does life have a structure?" By means of additional questions, we press the students to analyze this problem. "What do we need to know to answer the question?" "If life should have a structure, how are we going to recognize it?" "If there is a structure, what must its approximate dimensions be: is it macroscopic, microscopic, or ultra-microscopic?" Once the class has settled upon what constitutes relevant fact, we add our facts to those the students have gotten from their reading. Our facts are those which for practical purposes are inaccessible to students because they are buried in the literature or are so new as to be known only by the active research worker. We marshal these facts so that their implications can be more readily seen and the student can make all the generalizations possible about them. We do not interpret facts or develop generalizations or hypotheses in lecture. Neither do we insult the students' intelligence by telling them what they can deduce. This method annoys the lazy student—he "doesn't like guessing games"— and it dismays the memorizer, but it brings them both to the laboratory "thirsting after knowledge" (or, at the worst, after answers).

In the laboratory the instructor supplies any activity that the student cannot see but of which he needs to know. For the rest the student has to depend upon his observation of the materials supplied. He is given a problem. No time is wasted reading instructions. Such directions as the students have are in their heads, and whether they are good or bad is their responsibility, and and not that of the instructor. The student looks at whatever he thinks he should look at, and he looks for whatever his analysis of the problem tells him he should look for.

The dialogue

The conference or dialogue is the "capstone." Here the students try to bring to bear all that they have gleaned from their reading, the lectures, the laboratories, and their thinking—especially their thinking. While the discussion is structured, this does not mean that the instructor forces some predetermined pattern on the students. He takes his cue from them and explores the logical consequences in first one and then another set of deductions. He develops a keen ear for the original or the incisive contribution, and he pounces on it with such obvious enthusiasm that his students learn to make such contributions more and more frequently.

The "homework" in the course, work done subsequent to the lecture (as distinguished from the reading done prior to the lecture), is like none our students have had seriously recommended to them before. It is "to go home and think about the course." The smart student listens to us and to the admonitions of those who have taken the course and does just this. In sum, the good student does what any student would do if he had not been spoiled by too much schooling.

The prelecture reading for the course is embodied in edited transcripts of the previous year's lectures. These are issued weekly and provide the class with what once constituted a minimal body of fact. Underlined and in italics are the problems, major and minor, which were developed the previous year, along with all the supporting questions. Since the word has gotten around that these are not rhetorical problems or questions, the students treat them respectfully. The study of these notes and the students' reading in a reference library, assembled by a librarian who audited the course, results in good attention in lecture because the students can afford to listen and think along with the lecturer, who goes on to present new material.

The supplementary readings[4] are doled out, one piece at a time, as the students are ready for them (when they have discovered their first major generalization, their second, and so on). These materials represent the original formulation or the best statement of the generalizations.

There is much instruction of students by students in class hours. A lot more of this instruction is done outside of class. Hardly a dormitory, sorority, or fraternity is without a Bio-Sci Study Group. These study groups are often presided over by upperclassmen who have taken the course and

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4 Beadle, G. W., Genes and Biological Enigmas, New Haven, Conn., Yale University Press, 1949, pp. 184-249 (see pp. 242-244 for Horowitz hypothesis). This is Chapter IX in "Science in Progress," Sixth Series, edited by George A. Baitsell.

Horowitz, N. H., On the evolution of Biochemical Synthesis. Proc. Nat. Acad. Sci., 1947, No. 31:153?157.

Huxley, Julian, Evolution of Modern Synthesis, New York, Harper & Brothers, 1942 (see pp. 13-28 for the theory of organic evolution).

Oparin, A. J. translated by Sergius Morgulis, *The Origin of Life*, New York, Macmillan, 1938.

Seifriz, William, Protoplasm, McGraw-Hill, 1936 (see pp. 525-526 for Free hypothesis).

———, Ed., A Symposium on the Structure of Protoplasm: A Monograph of the American Society of Plant Physiologists, Iowa State College Press, 1942 (see pp. 1-9 for the protein-molecular-network hypothesis).

Sharp, L. W., Fundamentals of Cytology, New York, McGraw-Hill, 1943 (see pp. 11-21 for the protoplasmic theory).

Tilden, J. E., The Algae and their Life Relations, Minneapolis, University of Minnesota Press, 1935 (see pp. 1-15 for the autotrophic hypothesis).

von Bertalanffy, L., Problems of Life: An Evolution of Modern Biological Thought, New York, John Wiley and Sons, 1952 (see p. 148 for holistic hypothesis).

who, having recommended it to some lowerclassmen, feel obliged to help them over the difficult material. While some groups are attended by all kinds of students, the good, the bad, and the indifferent, other groups are organized by the better students who want to travel faster and farther than the pack. These groups regularly wait upon the staff. Their need for a richer diet is accomodated by sending them to the "experts" in the fields which are of particular interest to them. The teaching of students by students is a learning experience for all concerned. First, the upperclassmen get their money's worth because the course changes enough from semester to semester to give them a booster shot. For the freshman it is particularly heartening to see some upperclassmen, alive and in the flesh, who not only lived to tell about it but to recommend the course.

The end, we hope, is not yet. Since we may read into our efforts implications that are not there, we are providing the reader with the data—or as much as seems practical to inflict on him—in the form of edited transcripts of actual lectures, laboratories, and dialogues and copies of the examinations.

Like Summer Rain

And this is the reward: that the ideal shall be real to thee, and the impressions of the actual world shall fall like summer rain, copious, but not troublesome, to thy invulnerable essence. Thou shalt have the whole land for thy park and manor, the sea for thy bath and navigation, without tax and without envy; the woods and the rivers thou shalt own; and thou shalt possess that wherein others are only tenants and boarders. Thou true land-lord! sea-lord! air-lord! Wherever snow falls, or water flows, or birds fly, wherever day and night meet in twilight, wherever the blue heaven is hung by clouds, or sown with stars, wherever are forms with transparent boundaries, wherever are outlets into celestial space, wherever is danger, and awe, and love, there is Beauty, plenteous as rain, shed for thee, and though thou shouldest walk the world over, thou shalt not be able to find a condition inopportune or ignoble.

—EMERSON: The Poet.

Rethinking General Education

Through the fluctuations of emphasis and direction in the General Education movement, the individual and social needs remain a continuing concern and challenge. The author (B.Ed., Alberta; Ed.D., Stanford), who is director of research at Western Washington College, supplements his earlier article on Critical Thinking by pointing out the many areas of fruitful rethinking in General Education.

By MAURICE F. FREEHILL

GENERAL EDUCATION like other reform movements has been characterized by protest. Its goals have frequently been stated in negative terms. Central in the issue, however, are positive purposes. At high levels of generalization these purposes get much professorial support. Such objectives include supplementing the knowledge of confined professional training, integrating knowledge from elective courses, and developing congruity of thought and action. In a more definitive list of objectives, citizenship, personal maturity, critical thought, adequate expression, and social responsibility take priority in the hierarchy of educational purposes.

Any statement of purposes for general education sounds much like that for liberal education. Indeed their goals are the same. Both movements seek to develop the educated citizen through liberating him to achieve his best differentiated development. Good general and good liberal education are characterized by individuation, by nonlockstep instruction, by concern with the modification of behavior, and not merely with the acquisition of fact. Their aims mutually include the development of skills, the learning of information, the production of attitudes, and the formation of values essential to constructive citizenship without regard to a special role in economic or social life.[1]

Such purpose does not deride the importance of knowledge and facts but concerns itself further with the cultivation of selective judgment based upon reliable knowledge. There is concern with development of values, with acquisition of concepts that interpret social and natural phenomena, with training in the manipulation of symbols used in the expression of ideas and aesthetic experience, with cultivation of appreciation or response to artistic and factual content, and above all with the syntheses of these and the subsequent tendencies to action.

Most advocates of general education agree that these objectives cannot be isolated and tackled one by one. This necessity for integration tends to support the idea that the objectives can be consolidated into one overreaching objective such as critical thinking.

The statement of objectives has been a difficult and time consuming task in all educational enterprise. The overriding nature of general education increases the difficulty involved in stating objectives and in evaluating achievement.

RESEARCH AND APPRAISAL

It is essential to know where we are if we wish to go anywhere. It is essential, too, to know where we are if we wish to be comfortable while there. It is clear that continuous stocktaking is as necessary in education as in any other enterprise. The complexity, the intangibility, and the newness of general education objectives make evaluation an exceedingly difficult assignment. Techniques for measurement of academic memorization are well accepted if not well developed, but the frontier with all its insecurities is soon reached when we must measure skills, concepts, loyalties, critical thinking, and knowledge. The American Council, Cooperative Study on Evaluation, studied five categories of outcome that required evaluation: (1) knowledge and understandings; (2) application, including critical thinking; (3) attitudes and beliefs, or values; (4) interests and appreciations; (5) personal adjustment.

In most institutions, progress so far has been limited to combining the measurement of application and information. This trend is much indebted to the Progressive Education Association's Eight-Year Study for the many techniques then developed. A few colleges have gone further to study postschool records such as those reported from the University of Minnesota in *They Went To College.*[2]

McGrath and others have pointed out the need to measure the entering student so that institutions may know not only where they start but what is achieved.

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1 Carlson, Loren D. Educational programs in higher education. Current Issues in Higher Education. Vol. 1, Part II (National Education Association of the United States, 1951), pp. 65-67.

2 Pace, Charles Robert. They Went to College. (The University of Minnesota Press, Minneapolis, 1941).

A recent volume describing evaluation practice in thirteen institutions will serve a very practical function in program planning. It is evident from this volume that much effort is spent on evaluating outcome other than academic. There are attempts to appraise and adjust to student capacities and needs, efforts to increase effectiveness of counseling and teaching methods, and efforts to measure the long-run outcomes of the educational experience. This volume reports a variety of organization patterns and suggests the need for certain attitudes and personnel. The editor writes:

Generally speaking, programs having professional evaluators at hand are more self-critical and are more productive in constructive self-study. Whether the self-critical state of mind precedes or follows the addition of an evaluation officer is not always certain, but increase in productivity in research and self-study is a predictable result of adding an evaluator to the staff.[3]

Evaluation, however, is much more than a technique. It is a point of view. It seeks answers and when simple questions are answered it moves toward complex ones. Such an attitude leads to continual questioning, appraising, and improving.

The issues examined are notably different from those of standards and controlled learning experimentation. A recent publication is typical.[4] It contains one paper on writing, one on grammar, one on faculty attitudes, one on student attitudes, and one on a course in critical listening. These matters have always concerned educators, but it has taken the more inclusive view of general education to activate practical investigation of them.

Research in general education has perhaps most often been directed toward the nature of the student, the needs of the student, and the changes in the student. There have also been comparative studies of curriculum and method and desultory attempts to do research on staffing problems.[5]

The recent Cooperative Study of Evaluation in General Education has been reported.[6] That report demonstrates that the major area of concern is with the more complex outcomes, with the uses rather than the acquisition of information, and with the changes achieved rather than with the academic level reached. The report indicates many of the difficulties involved in evaluation and suggests insights into methodology.

The study also developed tools and conclusions. There was, for example, evidence that people with certain personality patterns, regardless of ability, failed to achieve in the objectives of their particular program.[7]

Among the Cooperative Study findings the most provocative are those that tend to show that the greatest gains are made by students in institutions characterized by certain attitudes and educational practices rather than by size, source of support, or sex of the student body. The characteristics of the most successful institutions include:

1 Most students reside on the campus.
2 Admission involves more than high school graduation.
3 A core program of general education required of all students.
4 Program of exemption or credit by examinations.
5 Staff of general education courses strongly general education oriented.
6 Broadly conceived evaluation activity a continuing part of the program.
7 General education experience not confined to courses.
8 General education courses not waived for major in related field.
9 Strong administrative interest and active coordination of general education as a unit.[8]

There are, of course, many other points at which research is urgently needed. Education, more than most businesses, escapes honest self-evaluation because its successes and its failures are so removed and so scattered in the lives of individuals. College teachers particularly escape this evaluative experience through the rationalized security of prolonged education and because, more than other educational bodies, they can blame those that went before. Nevertheless, it is apparent that little is known concerning the relationships of curriculum content and student behavior, the distinctions between intelligence and critical thought, the sequences of experience and the nature of action, the effectiveness of discussion as an educational technique, the effect of information on the quality of expression, the alteration of leisure through humanities instruction, the modification of prejudice through learning the methodology of science, the permanence of learning that results from pertinent illustrations, and any one of a thousand other vital questions.[9]

The old line approach to research is determined by Ph.D. requirements. The studies are characterized by the students' need for security and are, therefore, confined in method and prob-

3 Dressel, Paul L. (ed.). The present state in evaluation in general education. Evaluations in General Education. (Dubuque: Wm. C. Brown Co., 1954) p. 325.
4 McCoy, Donald E. (ed.). The General Education Sounding Board. (Minneapolis; University of Minnesota, Winter 1955) pp. 1-43.
5 Morse, H. T. (ed.). General Education in Transition. (The University of Minnesota Press, Minneapolis, 1951) p. 233..
6 Dressel, Paul L. and Lewis B. Mayhew, General Education: Explorations in Evaluation. (Washington, D.C.: American Council on Education, 1954) 286 pp.
7 Miller, Robert D. Developments in testing for critical thinking and attitudes. Evaluation in Higher Education. (Tallahassee: The Florida State University, 1954) pp. 39-41.
8 Dressel and Mayhew, op. cit., p. 246.
9 Morse, op. cit., p. 233.

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lem. They are rigorous but may be inconsequential! Few of them can be applied to curriculum instruction or student control. It is unlikely that much valuable research will come from graduate students motivated by grim necessity or graduate departments motivated by defensive complacency. It therefore falls to the college to see itself. This is no mere matter of pounding out bits of unrelated data—it requires the participation of all and the will to honest investigation. There is some evidence that it may be most adequately accomplished when there is administrative planning for evaluation and when certain faculty members have specific evaluative functions.

In general

An excellent program in general education is not established from middle-sized values. The conception of a program requires some daring and imagination. Failure may begin with unwillingness to recognize that popular ideas are often mediocre because the mediocre rather than the unique is likely to be best understood by all. Unfortunately the mediocre idea or the half measure is likely to be adopted because its partial disagreements are either unseen or viewed as a compromise between two viewpoints, though either of them is superior to the one accepted. A good educational program is not likely to be evolved from the total agreements possible only in convenient compromise, in ignorance, or in the isolation that results from a fulness and stuffing up with agnostic academic parcels and unrelated tidbits of learning. It is nevertheless important to make agreements or partial agreements from which we may proceed toward appraisal and improvement.

Some of the agreements most readily reached probably include:

On Objectives

1 General education is the common portion of a good education.
2 General education is not specifically professional or vocational but contributes to specialization and vocational efficiency.
3 General education is concerned with the learning of motivation, with the use of facts and skills and not only with their acquisition.
4 General education objectives are likely to be less content centered and more production centered than other educational objectives.
5 General education objectives include informed social competence, informed political wisdom, informed critical thought, informed artistic appreciations, informed self-acceptance.
6 General education postulates sense, and the consequent assumption that informed, critical, and emotionally mature persons are useful to society and to themselves and are therefore the proper end of education.
7 General education is involved in unifying and making sense, thereby educating (liberating) the total dynamic of the educated person.
8 General education goals centralize in and are largely characterized by this making of sense, making whole, synthesizing or integrating.

On Curriculum

1 The fundamental characteristic of general education curricula is found in purpose and not in pattern.
2 The early humanities survey approach can readily be interpreted as anti-scientific and has sometimes been rejected on that basis.
3 Better general education curricula have been organized with conscious goals and are characterized by: intentional interrelationships of experience; planned increases in complexity; arranged repetitions with more involved structuring; and organized approaches to capping, drawing conclusions, determining values, and choosing directions.
4 General education curriculum is developed in larger units than the usual scatter of courses and might be in four or five sections (one in humanities, history, literature, etc., a second in science and mathematics, a third in appreciations (art, music, P.E., industrial arts), a fourth in synthesis (counseling, philosophy, etc.), a fifth might be communications.
5 Short-vision research is inadequate for the determination of curriculum since it is likely to produce a program directed toward social skills without direction.

On Integration

1 A deliberate effort at synthesis is a dogmatic part of general education.
2 It is improbable that integration can be achieved without an accepted code or value system.
3 Horizontal and inter-fact relationships are most readily established. Longitudinal relationships and configurated unity of knowledge, skills, motives and acceptances are among the most difficult learnings of men.
4 Integration is achieved by persons and in terms of goals not simply in logical arrangements of fact (though these may be essential in the process); consequently individually tailored programs are most likely to succeed. This is especially true when the student body is heterogeneous and the purposes are not narrowly conceived.
5 Since integration involves personality, self-acceptance, emotional acceptance of fact, selection of experiences suited to the intellectual complexity of the student and awareness of attitude and motivation. counseling is central to and not always differentiated from instruction.

On Operation

1 Instruction in general education, because there are more kinds of outcome, is less sterotyped, and requires more diversified selection and use of materials and techniques.
2 Instruction demands understanding of and commitment to an overriding purpose.
3 In raw number, there are fewer goals but these are spread over more diversified responses (knowledge, skill, attitude, value, adjustment, critical thought, expression), and therefore evaluation requires new and more complex techniques.
4 One evaluation technique (for measuring information and its academic applications) has been quite thoroughly perfected in general education.
5 General education shares with all education the need to test itself with action studies and life effectiveness research.
6 The success of general education is peculiarly dependent on good teaching.

On Hazards

1 Many programs are improperly named general education and these effectively quiet concern and progress.
2 General education is not good simply because other plans have shortcomings. The complexity and intangibility of general education objectives lend themselves to well-intentioned subjective rationalization of their accomplishment and there is therefore an increased need for continuous self-testing and continuous appraisal of effectiveness.
3 General education in the college and university is harmed by the assumption of terminal purposes, the lowering of standards or the inability to transfer learning to major or graduate schools.
4 General education is impeded by the assumption that it should be confined to lower division or undergraduate work. It is only recently that there has been a recognition that general education is part of all education and should be concurrent with even the most advanced specialities.
5 The mutual and grave concern with world affairs may unduly influence general education into a social competency course rather than a program designed from any total and dynamic orientation.
6 General education ceases to function without a unifying concept or goal. Disorganized compromise (for peace's sake) in plan making may remove coherence and the essential configurations of unity.

Problem Centered Conference Instruction

The dynamics of problem centered conference instruction is here presented concisely and graphically by a professor of government. The author (A.B., LL.D., Wesleyan University; Ph.D., Cincinnati) has done post doctoral study at the University of Berlin, is a member of the Bar, State of Vermont, D.C., and U. S. Supreme Court, was President of the American University 1941-52, and is author of two recent books. He is editor of the September ANNALS *on "Recreation in the Age of Automation." At Rollins College he is director of the Center for Practical Politics.*

By PAUL DOUGLASS

SINCE the late President Hamilton Holt introduced the method in 1926, the conference plan has been almost as firmly attached to the idea of Rollins College as its geographic location in Winter Park. Research in the dynamics of small groups, as applied to college instruction, has now provided new and more effective techniques for better teaching. This paper discusses one application of group dynamics in problem-centered conference instruction.

The conference techniques, in the course under discussion, are based upon three assumptions: (1) that the problem-centered group is the meeting point of the individual and the social order, (2) that competence in group participation provides a social skill of permanent carry-over importance, and (3) that conference method instruction motivates students to better effort and the understanding and application of ideas.

The students require, first of all, a careful orientation to the method of instruction; it is new to them. This orientation is given in the visual aids studio in Mills Memorial Library by the use of a series of slides, the images of some of which are reproduced here.

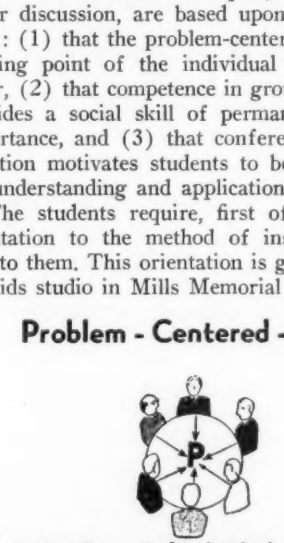

Figure 1

The problem (Figure 1), placed before a conference group, is explained and studied in terms of the "decision-making process." This process moves through four stages:

1 *Defining the problem:* What, brought into sharp focus, is the problem? What is its critical factor? What is the importance of the problem? Why is this problem before the class? What materials, work, and teamwork are involved in the solution? According to what time schedule will the work on the problem proceed?
2 *Defining the expectations:* What growth may the students expect to experience through the solution of the problem?
3 *Developing alternative solutions:* Which of several plans offers the best course of action?
4 *Using the decision when it is achieved:* How does the solution relate to the working equipment of the students in the understanding and manipulation of ideas?

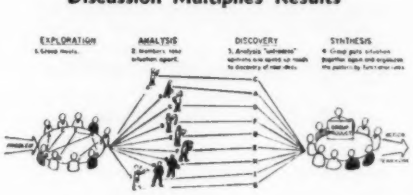

Figure 2

In the orientation demonstrations, the problem-center of the group is visualized with the diagram shown in Figure 1. the process of discussion is explained by the use of the diagram shown in Figure 2. By a process of exploration, analysis, discovery, and synthesis, the conference group works through its problem. At this point the students are introduced to the concept of the functional roles which must be performed in every productive group. Ten important participant roles are visualized in Figure 3. Of course, during a conference the same student at different points in the discussion may assume various participant

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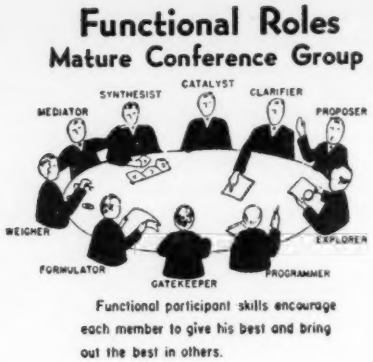

Figure 3

roles. In fact, a student demonstrates his mature skill by his ability to shift roles for the purpose of sustaining the quality output of the group. When the class meets around the table, the issue is raised by the student occupying the role of *Proposer*. The presentation is made by means of a problem paper manifolded by ditto process so that each student has a copy.

The students then proceed to ask questions to be sure they understand the facts and positions. They *clarify* the problem. Likewise, they *explore, weigh* one value against another, work through differences of opinion by *mediation* and *synthesis* as common ground is discovered and agreed upon.

Ways of Using Conflict

4. Creative Integration

CREATIVE INTEGRATION
Discovery of best in all and multiplication of strength from previous divergencies, all come out with more.

Figure 4

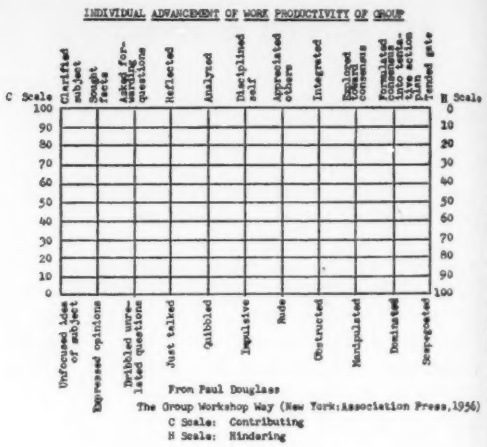

Figure 5

As a consensus develops, the group brings the discussion to a focus by a summary of areas of agreement by formulating proposals, and by action programs.

Throughout the conference process, emphasis is placed upon the importance of creative integration which develops as a natural outcome of mature discussion. This concept is explained by the use of the diagram presented as Figure 4.

Side by side with the evaluation of the students' mastery of the course content goes a concern for the maturity of the students' participant skill. Figure 5 suggests a profile for use in the measurement of a student's skill in the performance of the roles so necessary for effective group productivity.

While dynamic problem-centered conference instruction places a heavy burden on the imagination and planning of the teacher, it puts the group forces to work. These forces make for better motivation, increased participation, more mature discussion, and better understanding.

What Makes a Classroom

What do college students expect their teachers to be like? The following article summarizing many student evaluations of college teachers is by a professor of English at Brooklyn College (B.S., College of City of New York; A.M., Columbia; Ph.D., Pennsylvania).

By CHARLES I. GLICKSBERG

BROOKLYN COLLEGE STUDENTS are in unmistakable agreement as to what constitutes the ideal teacher. The specifications may vary in this or that particular, but on the whole students share strikingly similar views.

The first fundamental requirement is that he possess the ability to teach. He must have the gift of communicating ideas clearly and effectively to his audience. He must reach *all* of his students, instead of talking over their heads, even if it should happen that some students, despite his best efforts, are left in the dark. His ability to present his subject in a well-organized manner and arouse interest in the course is of primary importance. He should be able to answer satisfactorily all the questions students raise. Energetic and enthusiastic by nature, he should be able to inspire his students to enjoy as well as profit from the learning process.

ART OF TEACHING

Repeated again and again in the evaluation that students make of their teachers is the insistence that the instructor know *how* to teach. In addition, he must be able to put his students at their ease, for if they are frightened or intimidated they will dread coming to class. They learn little from an instructor who resorts to the weapon of ridicule or sarcasm; they are afraid to speak out lest they make a mistake. The teacher is responsible for generating a constructive class spirit. During the very first session he must make the students feel that they will want to work cooperatively with him. He need not be lenient in order to establish high group morale, a dynamic esprit d'corps. He should be efficient and follow a logically integrated program of instruction. If he is wise, he will not bring his moods of boredom or depression into the classroom. His personal life should not be allowed to affect his teaching performance. The students realize how difficult it is for a teacher, term after term, to be always cheerful and inspirational, yet they definitely expect him to make the effort.

For a good teacher, as one student sees it,

> is not simply one who knows a particular subject well. A good teacher is not simply one who lectures to a classroom. A good teacher is one who has an enthusiasm, not only for his subject but for life itself. He conveys this enthusiasm and vitality to his students in every word he speaks. He should give his all to his students so that he may expect all from them in return. He is not merely a figure in front of the classroom; he should be a spiritual force that constantly rekindles the human spirit. His character and moral strength should call forth faith and inspiration in every student. He should be a source of inspiration in communicating new ideas and in examining the values of the old.

This is an eloquent tribute to the unique power a dedicated teacher has over the minds of students. This is a tall order. How many teachers possess the character and moral strength to be able to call forth faith and inspiration in every student? Yet, reasonable or not, this is the miracle that many students look for. When the teacher does not teach in this spirit, his students experience failure. If he is antagonistic in his attitude, he cannot reach them. One teacher was so bitter and even insulting that he provoked real hatred on the part of his students. The easy method is to stick to the prescribed facts of the course. The more difficult but vastly more rewarding method is that of promoting self-discovery. The stimulating teacher urges his students to arrive at their own conclusions; he strives to make them think; he encourages initiative and seeks to enlarge their scope of understanding. In short, he is more than a specialist; he is an artist. "He reaches his students and holds their interest with just the suggestion of a gesture, the selection of the right word, an illustration, an analogy, the use of suspense." Each session of the class provides another challenge to his creative resourcefulness and vitality.

Students also place importance on intellectual broadmindedness. The college teacher should not be rigid or oldfashioned in his ideas; he should keep abreast of the times and understand the problems the young now face. "There is nothing more disturbing," one student writes, "than to come into a class and face a teacher who is behind the times by twenty years." The teacher should be sufficiently alert and in rapport with his students so that he knows instantly which

phases of a subject they find it hard to grasp and what serious personal problems many of them are burdened with. He must genuinely like his students, respect their views, and treat them with consideration. He must not look down upon them and make them feel he is casting pearls before illiterate swine.

College students want to hear what their teacher thinks, his own interpretation of a difficult controversial issue, but they protest if he insists too strongly on his own point of view and, particularly, if he will permit no other opinion to be expressed. He must know how to draw a line between two extremes. On the one hand, his function in the classroom is not to exploit his own personality or enforce his own ideas. He is there to communicate knowledge, to clarify and interpret the material of the course, but he also has the function and responsibility of provoking thought and stimulating further inquiry; he should make his students aware of the formidable complexity of what seems simple and settled. A teacher who respects his students will encourage them to form their own opinions, without seeking to dominate the discussion. He should be tolerant, open-minded, instead of seeking to punish anyone who ventures to disagree with him. There is no reason why the teacher should not give of himself freely and disclose his own views, so long as he does not persist in maintaining that they represent the beginning and end of wisdom, the summa theologica of truth. When a controversial issue arises, his point of view should be considered on its merits as one among many. Preferably, he should make his contribution toward the end of the discussion.

College students, keenly observant of the idiosyncrasies of their instructors, know when a teacher is making an honest, conscientious effort to teach his subject and when he is obviously loafing, when he loves his work and when he finds it dull and distasteful. What particularly antagonizes them is the seeming indifference of an instructor toward his students and his subject matter. When a teacher dislikes the subject, he invariably fails to teach it properly. If he is genuinely interested in his subject, his enthusiasm becomes infectious and students are eager to learn as much as they can. "Although I never liked Economics," one girl says, "last term I had an Economics teacher who made it seem so vivid and interesting because of his enthusiasm for the subject that I found myself learning more about Economics than any other course I had." Lack of enthusiasm for a subject on the part of a teacher is sufficient to destroy student interest. The teacher should enjoy his work and not be weighed down by boredom. Certainly he should not openly reveal his dislike for a subject. One student declares:

> A good teacher will be so enthusiastic about his work that he infects his students with his enthusiasm. In my two years at Brooklyn College, only two teachers have filled me with a desire to learn more about the subjects they taught. They were not interested in preparing classes for the final examination, but in making the class understand and love their subject. And those who had these teachers responded as I did.

Most teachers are indicted on the ground that they transmit their indifference to their students and fail to provide the essential intellectual challenge and stimulation.

Thus, students expect a good college teacher not only to know his field thoroughly but also to possess a fund of vital, contagious enthusiasm. He must love his work and teach with a spirit of dedication. Indifference is the cardinal crime. Hence, in the last analysis, it is the attitude of the instructor that "makes or breaks" a class. Those teachers who are truly devoted to their subject somehow manage to awaken the interest and response of their students. If the teacher is apathetic, then the students react with apathy. But a more frequent source of complaint is that many professors have no *personal* interest in their students. They do not, in many cases, even succeed in learning their names. One girl declares: "Many professors have no personal interest in their students. This is clearly shown by an instructor who makes no attempt to learn the names of his students . . ." Some simply sit at their desks and read from their notes, without ever looking up. Some never succeed in communicating with their students but live in an inaccessible private world of their own. Fortunately, some teachers make a practice of being friendly with the group; some are humorous, epigrammatic, clever, entertaining, alive. The students admire the teacher who does not act as if he were God, omniscient and infallible. The memorable teacher is the one who has both a wealth of knowledge and a thorough understanding of his students. He provides a friendly atmosphere in which the students can grow not only intellectually but emotionally and spiritually as well. As one student puts it: "The students will gladly meet the teacher more than halfway if he shows kindness, friendliness, and interest in their welfare." It is

his job to teach the virtues of loyalty and cooperation, to build character. Such a teacher fills young, insecure, groping students with confidence, helping them with their problems and giving them friendly advice.

In brief, the students stress heavily the importance of the teacher's personality. Is he sympathetic and understanding? Does he treat his students with respect? Does he refrain from subjecting them to unfair criticism? Some teachers scream and grow angry if a student gives an incorrect answer. A superlative sense of humor is a fine quality for a teacher to have, for it releases tension and promotes freedom of discussion. Some students like the teacher who is a nonconformist, one who has integrated the course with his distinctive personality. He brings in personal experiences to illustrate the points he is making. He concentrates on essentials and encourages his students to do extra work, instead of confining himself pedantically to the limits of the text. He changes the outlook on life of his students, challenges their values, breaks up their stereotypes of thought. The young place great stress on the quality of being good-natured; the teacher they admire is the one who makes them feel that he is glad to be with them. He joins in the laughter of the class; he is treated as a friend and not regarded as a policeman. He seeks to find out all he can about the personality of his students. He should be consistent and practice what he preaches. It is the man speaking to them that they wish to hear. They take it for granted that he is qualified to teach his specialty, but beyond this they look for the man. Is he devoted to his profession? Does he love his work? Is he stimulating and sincere? Does he speak a language that his students can understand? Intangible as these qualities are, the students rely on them each term in selecting their teachers. One girl said she did not wish to sign up for a course taught by a man who is a "stinker." When pressed to explain what she meant by the epithet, she said: "It is someone who is stiff and unbending and unbearably boring."

Though students do not come up with impressively new or original criteria by means of which they judge the excellence of a teacher, there can be no mistaking their interest in him and their expectation that he perform some kind of miracle in the classroom. It is obvious that they admire the man who does not conform to the traditional image of the professor: irreproachably dignified, mumbling his way through a mass of encyclopedic facts, and then making his grand exit. The teacher who gains their affection is the one who treats them as equals, listens to their ideas with unqualified respect, and encourages them to be frank and outspoken. He takes a personal interest in each student and zealously labors to call forth his highest potentialities. One student spoke with enthusiasm of an instructor whose personality and philosophy of life she found enormously inspiring. "For him the universe was beautiful and mysterious, man's job was to learn as much about it as he could, and even this is very little." Here was an English instructor who invited his students to share in the responsibility of drawing up the list of reading material. He met with them as a group after school hours; they would attend concerts, museums, lectures, the theater. "He became a kind of Socrates for us—drawing out our potential and all the ideas that lay fallow in us." For such a man, all the students worked willingly and diligently. "To us he was a human being first and not that special category 'teacher,' a walking encyclopedia."

The teacher who presides

What makes a classroom, then, is the teacher who presides over it. He is committed to the task of making better persons and citizens of his students. By guiding the young, he helps them to discover themselves. It is the personality of the teacher that is of supreme importance. He must set an excellent example of moral courage and integrity for the young. He must be willing to admit that he does not know what he does not know. He must display no unpleasant mannerisms and not overemphasize grades. If he conducts his course in a dynamic, interesting manner, then the mark does not matter too much.

But if the young recognize and appreciate the positive virtues of gifted teachers, they are aware also of the shortcomings of those teachers who fail to live up to the ideal. Some lecture on every subject except the one they are supposed to teach. A few teachers go so far as to voice their contempt for their colleagues. Some seem at a loss as to what to say next and their lectures are uncoordinated, rambling, incoherent; they never finish what they start. Too many teachers assume that their course is the only one of importance and hence give too many time consuming assignments. Some are not fair in drawing up and grading examinations. Good teachers should review

the tests they give so that students will be able to learn from their mistakes. Students are unfavorably impressed—they actively dislike—the teacher who talks in a low, monotonous voice, without giving the class an opportunity to engage in discussion. He reads his notes mechanically, listlessly, his facial expression never varying as he reads. They also dislike a teacher who is too meek and who subordinates himself to the class. He must assert himself and not allow the students to take advantage of him. Too many follow the syllabus too slavishly and do not call forth original thought. Too many classes are conducted as lectures.

Democracy makes itself felt in the classroom as well as in society. It is difficult, however, to conduct a class democratically; it requires leadership. The teacher who is effective in this respect is the one who really loves his subject, whether it be the classics or mathematics. "This alone should prove," one student writes, "that there is no such thing as a 'dull' course, even when it is conducted in a 'dead' language. There are only mentally 'dead' students and 'dull' instructors." A born teacher is one who approaches his subject like a lover. His eyes sparkle, he visibly enjoys his work. In his class no one is concerned about grades, for the love of subject proves irresistible. The method of authoritarian instruction is deadly.

The standards these students hold up are uniformly high; they expect nothing less than perfection on the part of their teachers and are grievously disappointed when they do not get it. They realize, of course, that teachers are human and therefore fallible and imperfect. Their experience of disenchantment with some courses makes them that much more appreciative of the gifted teacher. The function of the teacher is to develop the best in his students, to encourage them to test their powers and explore new worlds of thought; he should point out to them the way in which all knowledge forms a unity. In one student's view:

> The work done in one course is stored in one compartment of the brain, the work in another course in another compartment, and so on. This vicious cycle ends with a mark or grade at the end of the term. This grade tells exactly how much you remembered of what the teacher said, or how well the teacher liked you, but definitely not what you know.

The students listen to their teacher, even on dispiriting days when the heart seems to have gone out of the lesson; they sit listless and withdrawn, but they are listening, perhaps with "the third ear," and they are judging him shrewdly all the time, whether he knows it or not. And their judgments are usually fair, unbiased, even kindly. They judge a teacher by what he is as well as by what he knows; by his innate personality as well as his teaching methods; by how much of himself he gives as well as his conscientious devotion to duty. They judge him by his tone of voice, his appearance, his look, his animation, his enthusiasm or lack of it, his degree of interest in them, his vision, his vitality, his sense of humor, his measure of self-control. When he makes a genuine effort to reach them, to communicate his intellectual passions, they are more than grateful. They leave the room with throbbing minds and shining faces. The teacher thus wields a potent influence. When he is true to himself and to his calling, he becomes an inspiring source of vision and his words, as Henry Adams knew, echo down the generations. Some teachers, growing weary of the strain of a heavy schedule and the burden of large classes, grow cynical or bored, and the students charge them with betraying a sacred trust. They are robbing the students of their cultural birthright. Teaching, the young feel, is meant to inspire or it is nothing.

What binds teacher and students

The only thing that binds together teacher and students is that the latter are presumably filled with a desire for learning while the former is, presumably, eager to satisfy that desire as fully as he can. Even this, however, cannot always be taken for granted. What students do want, even when they are not aware of it, is a comprehension of life's bitter mystery, a knowledge of the world and its ways, deeper insight into themselves and their fellowmen. Though the teacher is not in any sense a preacher, he is supposed to embody a number of ideals: for example, the ideal of suspended judgment until the evidence has been gathered and critically examined, the belief in free and full inquiry, the conception of truth as an open, never-ending quest. The genuine teacher does all this intuitively. But he is himself part of the educative process, involved in an interpersonal situation. He reveals his range of intellectual curiosity, his commitments and concerns, the indwelling quality of his mind. That is all to the good so long as he does not try to indoctrinate. The young must learn for themselves whatever eternal verities exist, the moral duty of man, the vital function of tradition; they cannot be taught by dogma; their minds are not

empty containers to be filled, passive clay to be shaped by the hands of the pedagogic potter. Education is an art. The human mind is alive, engaged in perpetual activity, responding to an infinite number and variety of stimuli. Attitudes cannot be transmitted by preachment. As Whitehead declares in *The Aims of Education:* "There is only one subject-matter for education, and that is Life in all its manifestations."

The ideal teacher, then, is one who devotes himself like an artist to his profession. He believes in the truth of what he says and in the importance of the instructional material he is communicating. At the same time, he has the gift of viewing himself from the vantage point of his listeners, seeing himself as they see him, measuring his effectiveness even in the stress of delivery and discussion, knowing when to reach a dramatice climax, and when to ring down the curtain. Endowed with imagination and enthusiasm, he generally makes his students feel they do not wish to miss a single session, for they find the learning process both absorbing and meaningful.

In their analysis of what constitutes the ideal teacher, these students seem to recognize that education is not simply a rational process of conveying chunks of knowledge and an organized body of ideas to a group of obediently passive listeners—the note-takers and mental blotters of the classroom. Students' confessions and analyses represent a marked protest against the increasing tendency toward the standardization of the educative process: the mechanical marking system, the quantitatively measured course of study, the stress placed on information alone. Teaching, they feel, implies a human relationship, with the emphasis placed primarily on the emotions, on the development of personality and character. The intellect must be trained but that is, after all, a secondary effect, for even the knowledge that is successfully assimilated is channeled through a live teacher-personality. Factual information, however necessary in the overall educational plan, is no substitute for education in the art of living.

Actually the young want more than knowledge; or rather, they are in search of the knowledge which makes for wisdom and provides a guide to "the good life." If they have one major criticism of their instructors—and they are as a rule inclined to be generous in their appraisal—it is a failure to provide the vital element of leadership. Too many teachers stick pedantically to the required textbook, giving stereotyped assignments. They are too much concerned about the factual ground to be covered. What these students hunger for and so rarely receive is the flash of insight, the moment of discovery and revelation, the intellectual enthusiasm of the teacher, the experience of participating in a collective journey toward the ever-elusive and unattainable truth, the sense of dedication to values which, however much they may change from time to time, are precious precisely because men cannot live without spiritual values and the light of vision.

The Literature of College Teaching

The literature of college and university teaching may be divided into four categories: (1) extant books; (2) articles in periodicals, some of the most notable of which contain material that should find its way into books but often does not; (3) reports, records, analyses, and other material written but not published; (4) books and articles yet to be written. The widespread and growing interest in the improvement of college and university teaching gives promise of a literature in the future that will surpass in quantity and quality what now exists.

These Books Were Stimulating: Seventy Books on College and University Teaching. Corvallis, Oregon: Oregon State College Graduate School. 1955.

Educational Leadership Today

The author of the following article (A.B., Southern Methodist; A.M., Ph.D., Columbia) has been head of the Department of Mathematics at Oklahoma A. and M. College since 1948. He has contributed an earlier article on Improving the Teaching of Mathematics. As current Director of a National Science Foundation supplementary training program for high school science teachers, he addressed a group of Future Teachers of America. His message has timely interest to college and university teachers who are preparing teachers for the high schools which in turn will supply the science and mathematics trainees for future teaching.

By JAMES H. ZANT

A SCIENTIST recognizes the importance and implications of conflict. There can be no progress in the area of science without challenge. Scientists and educators now have the problem—the challenge—of engineering and scientific shortages, primarily in manpower, but also in the realm of ideas and basic research. One way to help solve this problem is with financial assistance from government, business, and industry. Such help is not absolutely essential, but the problem can be solved more quickly that way, and because it is urgent and vital to our national welfare, educational institutions are accepting assistance of this sort. For example, the Oklahoma Agricultural and Mechanical College has accepted a grant of more than a quarter of a million dollars from the National Science Foundation, an agency of the Federal Government. The purpose of this grant is to improve the training of high school science teachers in order "to strengthen the capacity of these teachers to motivate students to careers in science and mathematics." But this involves a conflict of ideas of federal control versus state and local control. We hope while using this available support to avoid some or all of the dangers involved.

Society is torn and uncertain about its goals, and since education is a means used by society to achieve its goals, education itself has become a battleground of conflicting ideas. It is a situation we must face. It is also a situation which may well destroy our whole social structure or which may be made to serve society. A dramatic illustration in the field of science is the greatest discovery of mankind, the release of the energy of the atom. Through this we have unlimited power at our finger tips. The conflict is in the use to be made of this vast source of energy. It is the *Atomic Bomb* versus *Atoms for Peace.* Since atomic energy was first used for destruction, there are those who think that this knowledge should be suppressed. Others see beyond this purely destructive possibility and conceive of atomic energy as something that, properly used, can be made to benefit all mankind.

We have the unprecendented opportunity of making something out of the conflicts that now exist and will later arise in the field of education. Our attitude should be that we will attempt to extract the good from both points of view involved. Our attitude should not be that we will fight it out and follow one path *or* the other.

I would like to discuss a few of these dichotomies as illustrations. One is the conflict between the public and the professional over the control of the purposes and processes of education. This is a real conflict. On the one hand we have an awakened interest of the community in education and a rapidly growing notion that, since the schools belong to the people, the people should participate directly and powerfully in determining the nature of every nook and cranny in the school enterprise. On the other hand, the professional educator feels that schooling is a process best delegated to teachers and administrators and that they know best.

Only a few weeks ago I sat in a meeting of the school board and the faculty of a community school. A prominent member of the board, the town physician, was presenting his idea of what the school should teach, and how it should be administered, even to the class schedule, with vigor and conviction. The superintendent and principal and teachers were concerned about this program because it was evident that Dr. A. had strong support in the community. He would have the school start at 7:30 a.m., so students could get the "real subjects they needed during the day and other less essential ones like music, vocational agriculture, athletics, etc., could come after 4 o'clock." He had a point and according to his idea of the purpose of the school, it was a valid one. The conflict is a real one. It is our job as

school people to use the wisdom and special skills of lay people in making our schools as powerful as they can be. This will call for our best efforts.

A second example of a conflict only recently developed is the collegiate preparation of public school teachers. This is primarily a college problem, but its solution involves the teachers produced and the public schools in which they teach. The problem has arisen largely because of an awakened interest on the part of college subject matter teachers. These teachers, like the doctor mentioned above, have a point of view and have proceeded doggedly and with singleness of purpose. The educationist has a different goal, but because he usually has no control over the subject matter departments he lacks the means to attain it. The conflict between these two types of educators is more imagined than real and has resulted more from lack of communication than anything else. The result, though, is sometimes disastrous to the teacher trained under these conditions.

Remedying this situation in the training of teachers may be as simple as getting the various people involved in the process together and discussing what is becoming a problem of concern to all of us. We all admit that, to be effective, teachers must be leading citizens in the community and therefore they must have a general education. They must be able to teach subject matter which will educate our children and therefore they must have specialized training in these areas. Finally, they must be professional teachers and therefore they must have the needed specialized skills.

In the past weeks I have had occasion as Director of the National Science Foundation's Supplementary Training Program for High School Science Teachers to examine the transcripts and much other data of more than 200 high school science teachers scattered all over the United States. They told me, in conversation or in writing, that they do not know enough to teach the children that appear before them every day. It is evident from their records that in many cases their programs of preparation have not been very well prepared.

There are many reasons for this situation, but it can be remedied. I am convinced that it will be remedied. The new curriculum must be the very best that those from every discipline can think and propose, synthesized by inventive and creative minds. The college and school people must get together and stay together until they come out with a dynamic and effective program for educating teachers. This is the real challenge involved in this conflict.

A final challenge to the teachers of tomorrow is as broad as life itself. It involves a synthesis of the various forces that are constructive or potentially constructive in the education of the community. If you know something about the history of education in this country, you will realize that more often than not, the schools have failed to meet the challenge of progress in our social structure. Thus the Latin grammar school gave way to the academy because it could not adapt itself to the changes of a developing society and that society's needs. The public high school superseded the academy for a similar reason. Now we are faced with a whole new list of media which can convey education to the people and they are becoming more numerous, thanks to the foundations laid by our schools and colleges. We have the press, county agents, radio, television, etc., etc., sponsored by the schools, the government, tobacco companies, churches, the Marines, and everybody. Too often the sponsor has an axe of some sort to grind. The schools can, if they wish, do nothing, as so often in the past. On the other hand, this situation is a great challenge to educational leadership. Education can equip itself to play a leading role in this great mass of educative media that is now upon us and that will increase to an astronomical degree before our very eyes.

If the essence of the future of our society is one of conflict, the role of educational leadership is to resolve conflicts by using the best synthesis possible from both sides. To do this, we must have the basic knowledge of general education and the specialized fields in which we work. We must also have the professional skill and techniques needed to make this synthesis and to teach our children the things they must know to live most effectively in the complex society of the future. Finally, we must have the will, wisdom, imagination and ingenuity to recognize and meet the challenges of the future of which the ones mentioned are only illustrations.

Industrial Arts for Elementary Teachers

Industrial arts is being evaluated as a tool vitally necessary to understanding modern society and to learning to live in an industrial, technological culture. The author (A.B., San Francisco State College; M.A., Columbia; Ed.D., Stanford) of the following article outlines a plan of training for preparation of teachers of industrial arts in elementary schools. Readers familiar with the field can appraise her proposals in the light of the challenging demands at all levels of education today. To others the article will give a quick introduction to the aims, content, and outcomes of an industrial arts offering in a teacher training program. Dr. Scobey is assistant professor of education at San Francisco State College.

By MARY-MARGARET SCOBEY

We conceive of learning as the changing of behavior. Thus the guidance of learning has become more than listening to lessons or making assignments for rote memorization. Our teacher-education programs strive to prepare a teacher who can use many resources: human, visual, auditory, and manual. A teacher must be able to help children work together for understanding and respecting individual differences, avoidance of conflicts, and adjustment to new situations. Understanding the needs, characteristics, and levels of aspiration of children, and using this knowledge in the supervision of developmental tasks is also part of the teacher's preparation. She must understand the use of such techniques as problem solving, planning, and evaluation, and be able to develop lessons which have meanings derived from the roots of concrete experience. A teacher should be able to observe and study children, taking cues from their interests, reactions, and behavior patterns, as well as contributing to the building of democratic skills, concepts, and attitudes. We must help elementary teachers face responsibility which includes the development of such skills as cooperation, self-discipline, tolerance, and critical thinking.

Many questions have been raised as to the pattern of education which can most effectively prepare teachers. In this thinking, industrial arts is being evaluated as a tool that is vitally necessary to understanding modern society and to learning to live in an industrial, technological culture. Children do not participate in industrial processes as they once did in a more simple culture.

By "industrial arts" we mean those experiences involving processes which change raw materials for man's use, or activities centered around tools, machines, and processes through which man has adapted his physical environment to serve his needs. The intellectual significance of a product or process as well as its physical and manipulative aspects is also a concern of industrial arts. Understandings and appreciations are developed which relate simple processes to the more complex mechanical processes used today, and the changes thus made within our society.

Because the present educational needs of children and youth make industrial arts more important to the elementary curriculum, a carefully planned course is appropriate to a teacher-education program. A suggested course is described here. The course, "Industrial Arts for Elementary Teachers," may be offered for three semester hours.

Objectives

Within the framework of the major goal of education, three general objectives are pertinent to a course for elementary teachers in industrial arts:

1 To develop in teachers understandings and appreciations which will help to make the world of modern industry and technology more meaningful to themselves, and through them, to children.
2 To develop an understanding of the evolving industrial-arts concept, its role in the elementary curriculum, and its methods of realization.
3 To develop within teachers a feeling of security in the use of tools and materials, and the knowledge about industrial arts processes so that they may effectively provide similar activities in the classroom.

Specific purposes of the course might be to develop in teachers: (1) ability to conceive of appropriate industrial arts activities for use with curriculum or social studies units; (2) understanding of the implications of industrial arts processes for enriching social learning; (3) appreciation of the value of authentic materials and processes in industrial-arts experiences; (4) familiarity with processes generally used in the classroom; (5) understanding of effective ways to organize classroom situations; (6) skill in the use of simple hand tools (including other than carpenters' tools, as carder or spindle or churn); (7) knowedge of the grade level at which tools and materials are best introduced and used; (8)

understanding of the safety factors necessary to effective use of tools and materials; (9) knowledge of the sources of materials; (10) appreciation of hand work; (11) familiarity with many industrial processes and their influence upon society; (12) appreciation of the contributions of the worker to society.

Classroom activities

Lectures and demonstrations, group discussions, individual reports, and participation in individual and group activities are provided in class work. Arrangements are made for sharing experiences and sources which will contribute to the collection of many data and familiarity with a maximum of processes.

At the first meeting of the class the details of organization are worked out. If no laboratory fee is charged, a class fund may be necessary for clay, flax, nails, and other materials with a treasurer to collect and disburse funds. Since one of the purposes of the course is to familiarize students with materials and their source and cost, an arrangement should be agreed upon whereby members of the class act as "buying committees" for each week of laboratory session. Some economies can be achieved when specific items such as needles, rags, scraps of yarn, newspaper, are brought from home by class members.

Lecture periods are not to be conceived as lecture time only, but also as an opportunity to clarify problems and through group discussion seek deeper implications of industrial arts for curriculum and teaching techniques.

Time allotments for laboratory periods should be established early. The work should be patterned as much as possible after the typical work period of the elementary classroom. A suggested time allotment for a two hour laboratory (though such an allotment must of course be kept flexible) is: special report, 15 minutes; planning, 15 minutes; work, 1 hour; evaluation, 15 minutes; demonstration, 15 minutes.

Through planning and evaluation periods work is organized specifically as to plan, procedure, and materials with no waste of later time. As in the elementary classroom, these periods are necessary also for the solving of problems and the extending of individual experiences. For example, one person may be making an Indian band-loom while groups of other students are making box-looms or Indian rug-looms. Sharing plans and helping to evaluate progress in a total class group will give the prospective teacher a broader experience than possible when working alone. The two techniques of planning and evaluation also develop ability in problem solving and logical planning (critical thinking and reasoning) and are found valuable in the elementary classroom.

Demonstration of new processes by the instructor the day before the work is begun gives students time to think a bit about the process. Often a creative project will be undertaken, and frequently more satisfaction is achieved if some thought can be given to the shape of the bowl or the design of the fabric. It seems difficult for students to complete a creative activity "cold," or without some time to "mull it over." Demonstration at the end of the preceding hour will also help the buying committee visualize the "why" of materials needed, and will impress upon the students the necessity for bringing particular items to class for the next session. Planning time at the beginning of the next period will refresh memories and provide opportunity for group organization or selection of individual projects. The term "demonstration" here does not imply that the instructor will go into elaborate detail such as completing a basic truck model or actually making a plaster-of-paris mold. An illustrative description of new process is necessary, and the instructor is expected to demonstrate this as briefly and as clearly as possible. Yet he must still leave opportunity for student exploration and the development of creativity.

The limitations of space and equipment will influence the kind of activities offered. The laboratory should have adequate exhibit space, work benches or tables, simple hand tools, a stove, a sink, and if possible a stationary upright loom, a kiln, and a potter's wheel. It is assumed that work space and equipment needed for the processes offered are available.

Discussion of the general and specific objectives of the course will lead directly to the planning of the laboratory work. Around these activities the instructor will arrange appropriate topics for emphasis during the lecture periods. There may be slight variation in activities because of differences in emphases between teacher-education programs. Experiences in art courses, educational methods courses, and other planned activities may modify the industrial arts course.

Effectiveness of procedures and techniques should be continuously evaluated. During the planning and evaluation periods students look at

and discuss individual and group projects, as well as evaluate the work techniques contributing to their completion. Instructor and student criticism and guidance continually evaluate the appropriateness of the activity, its usefulness to the curriculum, and its importance to our technological culture as well as the workmanship which goes into it. Through evaluation of methods and procedure the young teachers will strengthen their own ideas of teaching techniques.

Some topics for lecture and discussion might be: definition of industrial arts, justification for industrial arts in the curriculum, role of industrial arts in the curriculum, authenticity of processes and materials, criteria for judging appropriate activities and materials, organizing the classroom for industrial arts, planning an industrial arts lesson, helping children plan and create, safety factors in laboratory work, modern industry and technology, workers in industry, materials (cost, source, kind), significance of industrial arts processes to society, role of hand work in our culture.

Laboratory experiences might follow this schedule: First week: introduction, definition, organization. Next three weeks: wood—demonstration of tools, construct transportation models. Next three weeks: clay—prepare local clays, model pieces, use molds. Next four weeks: textiles—spin wool, flax; make looms, weave. Next week: pioneer processes—make soap, dip candles. Last three weeks: special reports.

Each student should prepare a special report which will supplement the regular class activities. This report, given orally to the class, should describe the topic or activity, indicating the unit of which it may be a part. The grade level, how the activity emerges from and contributes to the unit, the planning by the teacher, the planning by children, the size of the group which will explore the activity, and references, recipes, instructions, and sources of materials should be included. Concepts and skills developed by the children through such a process or activity should be explained. Demonstrations and exhibits should be included. Following is a partial list of topics for special reports: making adobe bricks; bookbinding; dipping and molding candles; using natural dyes; experimenting with food processes (cheese, acorn mush); making glass; preparing grasses and reeds for baskets and mats; using gourds as utensils; reproducing primitive looms; tanning leather; making paper, parchment, papyrus, ink and/or pens; constructing simple printing presses; making soap; distilling turpentine, mixing paints; studying kinds of wood and their uses.

Outcomes

Students who have industrial arts experiences similar to those described here should be more skilled elementary teachers because:

1. **They have developed a concept of industrial arts and a sensitivity to its role in the elementary school, through exploration of various industrial and technological materials and processes, and relating them to the problems of everyday life.**
2. **They have experienced activities which are satisfying to children for their manipulative and experimental qualities.**
3. **They have developed greater insight into the ways to clarify social concepts for children through direct experience.**
4. **They have gained security with materials, tools, and processes.**
5. **They have worked together in groups necessitating cooperation, sharing of ideas and materials, problem solving, planning and evaluation, and other behaviors in which they will guide children.**
6. **They have explored meaningful ways to integrate concepts from a special field into the broad experiences of the elementary school curriculum.**

The Autumn Issue

Contributors to the Autumn issue (mailed in September) will be: Thelma Eaton of the University of Illinois, Winslow R. Hatch of Boston University (second of his series), Max Marshall of the University of California, J. Ellsworth Missal of Brooklyn College, Dorothy Reed Peckham of Los Angeles City College, Carl R. Rogers of the University of Wisconsin, Ordway Tead of Harper & Brothers, Wilson F. Wetzler of Madison College. Editorial: "Divine Discontent."

Language Armature

Men of all parts of the vast world are needing to communicate as never before, and language is an armature in human communication. Dr. Withers (A.B., Washington and Lee; M.A., Johns Hopkins; Ph.D., Pennsylvania) has been pointing out the basic fact of language for a long time. The following excerpts from his writings are reproduced by kind permission of SCHOOL AND SOCIETY. *The author, whose recent teaching has been at Virginia Polytechnic Institute, received the Citation of the American Classical League in 1949.*

By **A. M. WITHERS**

¶ The masters of English, including those in high professorial positions concerned with the language and literature, feel that the connection between English and its origins and backgrounds is so elementary as not to call for mention, much less proof. However, elementary though it is, this intimate and necessary relationship is not being understood, nor the statement of it enthusiastically received, in a great part of our American educational world, and this state of affairs has been going on for so many of these fast-moving years that general knowledge of English has declined to a very low ebb, while the techniques of teaching it more and more come to reveal professional disillusionment and despondency. (November 11, 1939)

¶ Professors of English know that drifting loose from her Latin and German parents, and her French sister has brought upon English the retributions usually visited upon the prodigal: poverty and malnutrition. They need not, of course, clamor for universal conscription of students for foreign-language study; for such action, suddenly applied, would find ridiculously inadequate the depleted instructional resources, especially in the Latin field; but they can at least make it impossible for future teachers of English in the schools to neglect one of the most imperative necessities of their professional training. Knowledge of other people's tongues broadens other horizons than that of speech, the horizons of all the other arts and sciences, in addition to forming the most useful and durable of bonds between nations and peoples. Are not the generous and high-spirited youth of our land tired of being stamped by a considerable part of the rest of the world as hopelessly provincial? (November 11, 1939)

¶ Professor Calvin Thomas of Columbia once asserted that his ability to read German was "an integral portion of his soul." In the same degree it *is* important that our native language shall be something absorbed within ourselves during long years of intimate application, something that, like nature, will not "betray the heart that loves it."

How such love is to be attained and nurtured solely by fierce frontal assaults on English; by courses in composition; by directions to college students, already physically grown and already distracted by crowded programs, that prefixes and suffixes mean this and that; by dictionary thumbing and community spelling matches; and by all the array of artificial, nonvital devices for coming at English from the outside, I am at a loss to comprehend. (April 18, 1942)

¶ The idea of the proponents of vacuum-sealing for school and college English seems to be that good speaking and writing is not at all a life-long-developed art; that if the necessary thought is conveyed to the business or social group, or if dinner guests are entertained with opportunities to laugh, the essential needs of language have been fulfilled. They reason further that English good enough for communication's ends comes from courses in composition and public speaking, from the reading of books, magazines, and newspapers, from conversations at home and on the street, and from cradle-to-grave thumbing of the good old dictionary; that, if language backgrounds and notions of etymology and semantics are deemed advisable for teachers, these can be secured to a sufficient extent by cursory surveys, administered by almost any instructor, not necessarily by one possessed of foreign-language acquirements.

But even if such assumptions and such definitions of "sufficient" English were correct, it would by no means follow that the shorter way to competence had been adopted. If, for example, one has to get his knowledge of words by means of all the artificial devices conjured up by conscientious teachers and the commercially minded publishers of the dictionaries, he might as well have taken what may be called the "Latin-assisted"

road in the first place. By that route he would certainly have arrived at his "practical" goal as quickly as by the other, and would have in addition unlocked languages necessary for reading in great exotic literatures and for attaching proper values to the civilizations of other peoples. Besides, the short cut generally proposed and practiced—which, we repeat, is not short—takes no cognizance of the fact that there is something wrapped up in English far beyond the power of the narrow functionalism implicit in a "short cut" to convey. (October 2, 1943)

¶ I find it hard to accustom myself to the thought that, in an enlightened country, and at this late stage of the world's development, citizens have to write and write to assert the values of given studies.

Let us as a people *settle on something* in educational affairs. Even a ban on Latin, if such should be the decision, might actually be a blessing, in however tragic disguise. It could in any event be only temporary. There would result from total prohibition of Latin such a tumultuous descent from what remains of good English among us that the saving grace of this great spring of English-language health would come on all sides to be recognized for what it is. Some of us would have to live for a time through dark experience, but perhaps a blacker hour than we language instructors have yet known is needed before the dawn can break. (February 5, 1944)

¶ The French, a notably rational people, regard Latin as an educational bulwark of transcendent importance, essential to the proper conservation of native competence in contemporary speech, not only as regards literature, but also as concerns the language of the family at home and on the street. As their language is, in effect, Latin, Frenchmen, we might argue, could learn it in reasonably high degree without traveling back over the Latin road. But educational authorities have not thought the purely national paths sufficient; and what these same authorities think of our national habit of detouring around Latin to arrive at Latin French and two-thirds-Latin English, it is not difficult to conjecture. (February 5, 1944)

¶ Too many of us began to specialize before we had attained to any marked degree of inward ripeness, a thought which irresistibly inclines me to put in a word for the classics disciplines. Some tell us it is a turning backward of the wheels of progress to attempt to put intellectual workers through at least the Latin mill, and even some classicists express ideas of defeatism and appeasement in this matter. But, without being a representative Latinist, I venture to affirm that the Latin discipline, or something very closely resembling it, has to be experienced if a wide-embracing and tolerant type of education is to be realized. How are we so-called intellectual laborers to expect to meet on any sort of common intellectual ground if our formative years are altogether bereft of a strong common intellectual bond? And what mental accoutrement is so transcendently essential for common purposes as possession of the bases of the language arts, the most veritably intimate phenomena in the lives of men? (December 2, 1944)

¶ The unscientific treatment of the needs of our language is indeed the worst of all the "bottlenecks" in contemporary education. Here is a preparation for life that will not endure too much acceleration, too much of the middle-of-the-road philosophy, too much mingling with other matters of learning as just another subject; and that demands, because it is something of infinite variety, a varied approach, from which basic origins and traditions, and the simultaneous consideration of other languages of the common family, cannot be excluded. (March 31, 1945)

¶ Along with weak vocabulary goes feeble stylistic insight. Literature interests only as action or stories, with the sense of art almost completely missing. The learning of a modern foreign language, with attendant concern in its literature, under these handicaps, becomes practically out of the question. In the large category of linguistically deficient college students, only those who accept the condition that they must begin again at the beginning and learn the new language from the ground up, while simultaneously ministering to their own halting mother tongue, can really derive much benefit from foreign-language study. It takes no effort at all to see how futile are those dream courses, offered indiscriminately to Tom, Dick, and Harry, that are unfalteringly conducted wholly in the foreign language. (November 9, 1946)

¶ A college class of 35 students of English was asked to define corporal and capital punishment. Out of the number a full 30 revealed ignorance of "corporal;" 22 did not know "capital." A moment ago a preacher on the radio changed the well-known wording to "The mills of God grind *exactingly*," thinking, no doubt, to bring the mean-

ing home to the minds of his widespread congregation. But I cannot suppress the conviction, in view of the foregoing, that his alteration wrought much more harm than good.

There is indeed a tremendous task confronting the teachers of all subjects in the United States; namely, that of counteracting the drag of inadequacy of word stock on the part of students. (November 9, 1946)

¶ It used to be thought that some aspects of the world's lore could without harm be withheld from young people until they had made sure about their language footing. But now requirement after requirement is introduced just because life needs music, art, capacity for social adjustment, scientific information, and so on. We prescribe courses as if school could teach everything, in double-quick time, and as if what a person did not learn in school he could not possibly learn in the rest of his life. In the mad rush we come out fatally handicapped by failure to gain the most important of all educational assets, understanding and appreciation of our own language, the vehicle of our thoughts (as well as their principal initiator and conditioner). (June 7, 1947)

¶ Shakespeare "split the ears of the groundlings," to be sure, but there is no evidence I can think of in his works that he felt within himself the power to leaven the mass in wholesale quantity. The mass, he knew, wanted only the story and the action. The magnificence and magnanimity of his lines were for the few who had the preliminary linguistic upbringing (together with character) to feel their rhythm and beauty and connotations, subjective and objective, down to the very roots of their being.

That master craftsman may have had "small Latin and less Greek" (though plenty to loom large by our modern American standards), but he had enough for the making of his English vocabulary. Observe that appreciation of language at Shakespeare's height (or Milton's, or Wordsworth's) does not come while one sleeps, and that it has only very rarely come at all from the contemplation of one language alone. We can bring people to rejoice in literature only if they are seasoned in language. Their minds must have a strong language armature before they can be moved by the concord of sweet sounds that is at least half of literature. (August 20, 1949)

Most of those who go out from the teachers colleges into the high schools to teach English have not been required to have any foreign languages, and most of them therefore know nothing, or not enough to count, of any language other than English. This means that they do not know English either, certainly not with the perspective that could give them long-continuing and infectious enthusiasm. Now English departments in liberal arts colleges know this condition, but year after year goes by and they make no sort of protest to the authorities that set up the secondary school programs. Meanwhile these same English departments are prescribing French or German for the A.B.'s of their majors. The question arises: is the retention of foreign-language requirements for the A.B. in English only a blind following of tradition in which college professors do not really concur with their hearts? Or does fear for their own status, the protection through thick and thin of selfish financial and occupational interests, keep their lips sealed in the presence of a palpable abuse in educational practice, this strange production within teachers colleges of teachers of English without knowledge of or curiosity about another language? (August 11, 1951)

¶ Professors of English, with the rarest of exceptions (one in a thousand?) are guilty of saying nothing to students in classrooms about foreign language values for English. They have built up such overgrown faculty staffs, and to accommodate these have piled up so many courses in literature which must have consumers, that they have become callously unwilling to share students with their sister departments. The students who have come out from under the teachers who have told them nothing about foreign languages in their turn pass into the graduate schools. They are recognizably deficient in English through foreign-language neglect, but the graduate schools too, in order to live, must have customers and cannot be too severe. So with foreign-language-requirement bars conveniently allowed to sag, the undergraduates become graduates and go into the profession of teaching English progressively more lukewarm about foreign languages, especially about the one most important for English, Latin, than were their teachers before them. (August 11, 1951)

Another Thousand Years

The following editorial is printed by permission from THE CLASSICAL BULLETIN *of which the author (A.B., A.M., St. Louis University; Ph.D., Chicago) has been editor since 1952. Member of the faculty of St. Louis University since 1923, he has pursued a distinguished career as professor of classical languages, speaker, citizen, member of the American Classical League, American Philological Association, Archeological Institute of America, Linguistic Society of America, author and editor.*

By WILLIAM CHARLES KORFMACHER

THE Eternal City's ancient Arch of Constantine is considered good for another thousand years now, thanks to a bracing operation designed to secure slabs of stone loosened by the pound of modern traffic. So reported an Associated Press staff writer, from Rome, under date of August 26, 1956, characterizing the fourth-century structure as "one of the best preserved triumphal arches in the world."

This great monument, celebrating Constantine's victory over Maxentius in 312 A.D., has already stood for more than fifteen hundred years. "Another thousand years" would accord it the impressive age of more than two and one-half millennia—surely an imposing span of time even for generations of men whose look to the past, through patient and continuing research, is being constantly lengthened.

There is a certain timelessness about structures reared by the hands of men centuries ago. When those men were Greeks or Romans, their structures stand as milestones along history's way, marking one great avenue of the many influences which brought our civilization of today into being. But more impressive even than such great artifacts are the surviving elements in a reading in our own generation of literary masterpieces they composed, or in a continuing employment by some modern speech of words and forms of utterance derived from those same ancient tongues.

Those engaged in the teaching of Greek and Latin do not always themselves realize the high dignity of that with which they are ultimately concerned—language, speech, the communication of human thoughts and imaginings and feelings. This it is that the study and dissemination of any human tongue fundamentally possesses—a concern with the means of interchange between one human mind and another. Whatever can be done to sharpen, improve, accelerate, beautify that interchange will be a precious contribution to humankind. For man, as a social being, is by nature prone to inform others of what is in his own mind—so much so, in fact, that the basic malice of the lie seems to consist in its being a *locutio contra mentem,* as students of ethics say, "an utterance counter to the mind."

Thus a concern with language as an activity fundamentally and abidingly human, an activity at the very well-springs of society and all social action, is the high summons to the language teacher. His privilege it is to understand how permanent the function of human speech is; how in any foreseeable future man, in his essential constitution, will continue to rely heavily on his ability to express himself in language; how the fear of dealing in disciplines which may vanish or alter essentially in the generations yet to be need never plague the mentor of language. With all the august transformations science and technology may achieve in the remaining portion of this twentieth century and in the centuries beyond, man, as a rational animal, will continue to be an articulate animal.

WE may well suppose, in the onward roll of the years, that human language will improve—that speech will become a subtler and more flexible instrument to mirror externally the individual mind and imagination and heart. Such has been the course of language heretofore, among Greeks and Romans as well. It has improved and adapted itself to new demands. It has become more perfect in response to the intelligent effort directed towards its betterment.

Today's curriculum planners are distracted with many demands and many objectives. But among the various aims of formal education, a high place must be reserved for language study. The teacher of the classical languages has the happy privilege, not alone of instructing in the matchless tongues of ancient Hellas and ancient Rome, but of awaking in his students a sense of awesome privilege and power of language itself. For language, as one of man's proudest faculties, is a possession of permanence: "for another thousand years," yes—or for as many years as man in his present constitution shall continue to inhabit this globe.

Person or Production Foreman?

A Teacher Is A Person by Charles H. Wilson. New York: Henry Holt and Company. 1956. 285 pp. $3.75.

Here is a book that makes its point: *A teacher is a person.* The author is a teacher—has taught in high school and college, in a boys' school in England and at Cambridge, and is superintendent of schools in a suburban city. His book, while avowedly not an autobiography, reveals a man of intelligence, humor, humility, self-respect, and dedication, a person one would like to know.

There is much evidence that he has always been a person of purpose and character, one who, because he lives a life of his own, has influence on the lives of others. A revealing statement is made in an early chapter:

I said to myself before starting to teach that if I could not live a reasonably normal life, I would have no part of the profession. I discovered, somewhat to my astonishment, that the better teachers have always held to that principle.

He "never decided to be a teacher," but various factors made him one, and he has exceptional equipment for interpreting the teacher both as an individual and in society. He has been through the whole educational system from bottom to top, with a record that had its peaks and valleys. He was double-promoted in grammar school but barely squeezed through high school; he completed college in the lower third of his class but in graduate school buckled down to achieve numerous straight A reports in both English literature and school administration.

Any faculty reader of this book will think better of his profession and will find informing narratives of campus life, challenging ideas on the liberal arts, some discerning thoughts on educational criticisms, and a deepened sense of the unity of education. He will find some notable persons besides the author himself: a dean who was a power in placement, a PTA president who was a wonder in roll calling, a story telling professor turned soldier who was a whole morale corps by himself. The characters are real, and the names are their right names.

The book abounds in straight talk so simply stated that its originality and significance might easily be missed. In all the books and articles on general education, where would anything better be found than the following:

In the development of the human mind it does not seem to me that we can separate learning into minute, unrelated parts and hope to come up with an organized whole. Particularly in teaching, in the elementary school through undergraduate college, it is not so important to expose young people to highly trained experts in limited areas as it is to expose them to well-balanced teachers who know how to live. It is absurd in high school, for instance, that we expect a student to take English and history and sociology and foreign language from four different teachers and do well in all subjects when the teachers themselves are not expected to know more than their specialized area. The student is supposed to get a general education but it is not required of the teacher.

The author asks provocative questions like the following:

If what some people say is true about the importance of competing for grades, I'm surprised that boys learn to skate and bowl and play baseball without grades. How do children learn to walk and talk without grades? Am I wrong in thinking that incentive is more important than a letter grade? Am I foolish to believe that competition for grades may account for the difference with which boys approach baseball and arithmetic?

And he boldly points the way to reform:

. . . we need to take a fresh look at liberal education. The liberal arts college is suffering from hardening of the arteries. To a large degree it looks at itself no longer as a means but as an end. It has succumbed to a philosophy of efficiency and mass production, where the professor himself is a kind of production foreman, with his office and his scheduled hours and his record sheets. Where we should expect the fresh, the vigorous, the liberal, we get the traditional, the inflexible, the reactionary. We need as much as anything else in education, a revolt in the liberal arts.

Himself a critic of some aspects of education, he puts current criticism of education in illuminating perspecitve. He points out that the Bestors and Flesches and Lynds and Smiths were quite as lively in other times as now. After presenting samples of criticisms, he remarks: "For the skimming reader I want to underline the dates. These quotations were from 1920 and 1845. Only Mr. Bestor and Mr. Flesch carry mid-1950 copyrights."

Let the "skimming reader" but try this book. He probably will find himself doing much more than skim.

Recent Books

THE ADVANCEMENT OF THEOLOGICAL EDUCATION edited by H. Richard Niebuhr, Daniel Day Williams, and James M. Gustafson. New York: Harper & Brothers. 1957. xii + 239 pp. $4.00.

Summary report of a study of the graduate seminaries of the United States and Canada by American Association of Theological Schools financed by Carnegie Corporation of New York. Among many important elements are those interpreting teaching and learning and recommending improvement.

THE ANATOMY OF FREEDOM by Henry Pratt Fairchild. New York: Philosophical Library. 1957. xiii + 103 pp. $3.50.

In a special Introduction Corliss Lamont says: "Not only a most timely essay for an era when freedom is almost everywhere under attack, but also sums up in succinct and often epigrammatical form Professor Fairchild's most basic political, social and economic convictions."

CHANGING VALUES IN COLLEGE by Philip E. Jacob. New Haven, Conn.: The Edward W. Hazen Foundation. 1956. x + 178 pp.

"Printed now for limited circulation among educators to encourage further search for understanding of the results of college teaching." Filled with data. Example: Composite of traits students value in teacher: ability to arouse interest and enthusiasm, interest in students, tolerance and respect for students and their ideas, clarity in presentation.

EDUCATION AS A PROFESSION by Myron Lieberman. New York: Prentice-Hall, Inc. 1956. xviii + 540 pp. $6.00.

Comprehensive treatment—comparative, critical, problematic—concerned with the gap between reputed importance of the educator and his actual influence and status. Brief critical commentary on A.A.U.P.

ELEMENTS OF ALGEBRA by Howard Levi. New York: Chelsea Publishing Company. 1956. vii + 160 pp. $3.25.

Second edition of a text used for past six years in School of General Studies, Columbia University. Departs from traditional approach but prepares for advanced work in mathematics and exposes student to genuine mathematical problems and procedures.

GREEK GRAMMAR by Herbert Weir Smyth. Revised by Gordon M. Messing. Cambridge: Harvard University Press. 1956. xviii + 784 pp. $10.00.

Modestly termed a "corrected reprint" of the original 1920 book which remains "by far the most complete reference grammar of ancient Greek in English." Important additions have been made.

GROWTH TOWARD FREEDOM by William W. Biddle with collaboration of Loureide J. Biddle. New York: Harper & Brothers. 1957. x + 171 pp. $3.00.

"It is necessary to educate students *in* and *as part of* the community." Based on an experiment in Community Education at Earlham College. Extensive treatment of teaching methods for citizens and for students, evaluation, and many related topics.

HIGHER EDUCATION AND THE MATURE CONSCIENCE: THE PACIFIC NORTHWEST CONFERENCE ON HIGHER EDUCATION PROCEEDINGS, 1956. Published by the Conference at Oregon State College, Corvallis, Oregon. 96 pp. $1.50.

University of Utah meeting of the Conference, Sydney W. Angleman, Chairman. Teacher and Curriculum, Student and His Activities, Adult Student and Continuing Education. Addresses by Edwin B. Stevens, Waldemar P. Read, Lawrence H. Chamberlain, Hoyt Trowbridge, George A. Pierson, Reed M. Merrill, Wesley P. Lloyd, John Dyer. Discussion sessions.

IMPROVING TEACHER EDUCATION THROUGH INTER-COLLEGE COOPERATION by George E. Hill, Ernest Mahan, John E. Jacobs, Vaud A. Travis, Graham Pogue, C. H. Allen, and L. Gordon Stone. Edited by George E. Hill and E. F. Potthoff. Dubuque, Iowa: Wm. C. Brown Company. 1957. vii + 250 pp. $3.50.

Reports study by Subcommittee on Institutions for Teacher Education, Commission on Research and Service, North Central Association of Colleges and Secondary Schools, over period 1948-1955.

THE MEANING OF AMERICANISM by Robert N. Beck. New York: Philosophical Library. 1956. xii + 180 pp. $4.75.

This work won the $1,000 prize in the 1956 Philosophical Library essay contest. "An essay on the religious and philosophic basis of the American mind." "An ethic which takes respect for personality as its imperative."

NONPARAMETRIC STATISTICS FOR THE BEHAVIORAL SCIENCES by Sidney Siegel. New York: McGraw-Hill Book Company. 1956. xviii + 312 pp. $6.50.

Written for reader with no special training in mathematics. Comprehensive coverage of the non parametric statistical tests and measures of correlation, demonstrating their usefulness in the behavorial sciences. For each test the sort of data to which it is applicable is given.

THE ORDER AND INTEGRATION OF KNOWLEDGE by Wm. Oliver Martin. Ann Arbor: The University of Michigan Press. viii + 355 pp. $6.50.

Vastness of knowledge makes it important that a person professionally identified with a subject know clearly its nature, what it is and what it is not. The author has tried "to organize what others have discovered, to rediscover what some of us either have never known or have forgotten—and also, perhaps, to throw some new light on the old problems." The book has been called "a classic in its field."

PSYCHOLOGY IN THE CLASSROOM: A MANUAL FOR TEACHERS by Rudolf Dreikurs. New York: Harper & Brothers. 1957. xvi + 237 pp. $3.75.

Core of the book is a wealth of case stories of actual classroom situations from which teachers at every level and parents can enlarge their understanding and capacity to promote growth and learning.

READING IMPROVEMENT FOR ADULTS by Paul Leedy. New York: McGraw-Hill Book Company, Inc. 1956. viii + 456 pp. $4.50.

College teachers can make many uses of this excellent book. Almost every one of us would like to read more efficiently, and what we can gain from this book should yield rich dividends. (This book was listed in last issue with incorrect title.)

SCIENTIFIC FRENCH by William N. Locke. New York: John Wiley & Sons, Inc. 1957. x + 112 pp. $2.25.

"A concise description of the structural elements of scientific and technical French." Pronunciation, translation, verbs, questions, inverted word order, articles, pronouns, comparisons, negative expression, interrogatives, indiomatic expressions, plurals.

SCIENTIFIC GERMAN by George E. Condoyannis. New York: John Wiley & Sons, Inc. 1957. x + 164 pp. $2.50.

Intended to fill a need not ordinarily met by elementary language texts, Designed to be used from very beginning in conjunction with readings from unsimplified scientific and technical material and with a dictionary. Pronunciation, translation, parts of speech, idiomatic expressions, etc.

VISUAL METHODS IN EDUCATION by W. L. Sumner. New York: Philosophical Library. 1957. 231 pp. $6.00.

Second edition of a book first published 1951. Visual methods and education, the eye and the mind, visual tools and teaching and learning, visual methods and language, principles of optical projection, cinema in education, organization of visual aids. Well illustrated.